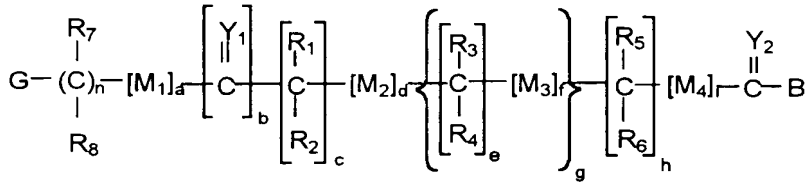
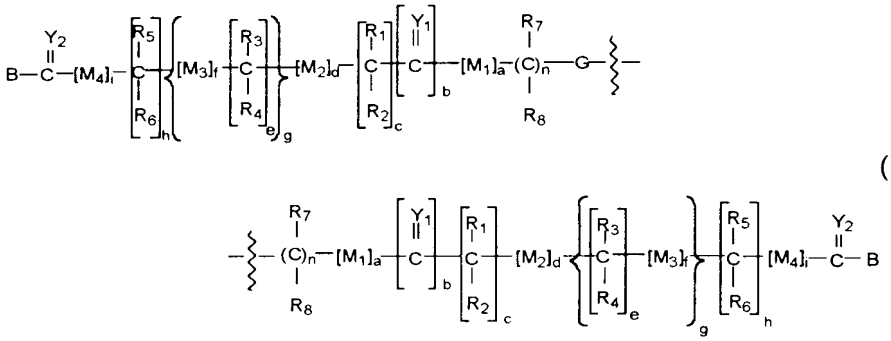
ABSTRACT

The present invention is directed to methods of preparing polymeric conjugates of biologically active agents of the formula:



(I)

wherein G is a linear or branched polymer residue; Y_1 and Y_2 are independently O, S, or NR_9; M_1-M_3 are independently O, S, or NR_{10}; M_4 is X or Q; wherein X is an electron withdrawing group and Q is a moiety containing a free electron pair positioned three to six atoms from $C(=Y_2)$; B is a residue of an amine-containing moiety or a residue of a hydroxyl-containing moiety; $R_{1\text{-}10}$ are independently selected from the group consisting of hydrogen, $C_{1\text{-}6}$ alkyls, $C_{3\text{-}12}$ branched alkyls, $C_{3\text{-}8}$ cycloalkyls, $C_{1\text{-}6}$ substituted alkyls, $C_{3\text{-}8}$ substituted cycloalkyls, aryls, substituted aryls, aralkyls, $C_{1\text{-}6}$ heteroalkyls and substituted $C_{1\text{-}6}$ heteroalkyls; *a, b, c, d, e, f, g, h, i* and *n* are each independently zero or a positive integer. In preferred aspects, the polymer transport system di-substituted with an equivalent of the active ingredient on both the proximal and distal ends of the polymer, as shown in the formula below:



(II)

Methods of preparing the same and methods of treatment using the same are also included as part of the present invention.

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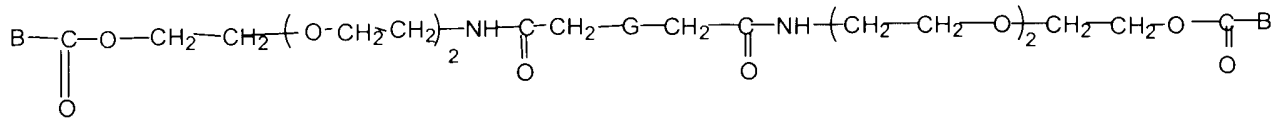
ABSTRACT

The present invention is directed to polymer conjugates of biologically active agents and methods of preparing the same. In preferred aspects of the invention, the conjugates are of the formula



wherein G is a linear or branched polymer residue such as a polyethylene glycol and B is a residue of an amine-containing or a hydroxyl-containing biologically active moiety such as Ara-C.